

XIII.—*Adris sikhimensis*, a new Form of the *Ophiderid* Group of *Noctuid* Moths. By A. G. BUTLER, Ph.D. &c.

FOR some years past we have had a single example of a moth in the Museum collection which I felt certain was distinct from the widely distributed *A. tyrannus*; but, as Mr. Hampson was inclined to the belief that it was merely an instance of individual variation, I abstained from describing it.

Mr. Moore's collection has now added three other examples from Darjiling, clearly demonstrating the fact that the Sikhim form differs constantly in certain characters from the widely distributed form of the East. I therefore no longer hesitate to name it.

Adris sikhimensis, sp. n.

General character and pattern of *A. tyrannus*, from which it differs in having the primaries much more largely suffused with moss-green; the sinus at the inner margin of these wings considerably longer; the curved black band on the secondaries with its upper portion constantly much wider and the large black reniform patch with its inferior lobe much enlarged, reducing the acuteness of the external indentation; the third joint of the palpi terminates in a decidedly smaller expansion than in any example of *A. tyrannus*.

Expanse of wings 100–118 millim.

Darjiling.

I believe this to be a perfectly distinct representative form of *A. tyrannus*; for although individuals vary in some of the characters which I have pointed out, there is nevertheless a wide difference between the nearest forms of the two types.

BIBLIOGRAPHICAL NOTICE.

A Monograph of the Land and Freshwater Mollusca of the British Isles. By JOHN W. TAYLOR. Part I. Leeds, October 1894.

IT is now thirty-two years since the late Dr. J. Gwyn Jeffreys published his account of the land and freshwater shells of the British Islands. It formed the first volume of his well-known and admirable 'British Conchology,' and has generally been accepted by the conchologists of this country as the standard work upon this branch of science. Other treatises have since been published, but none of these, with the exception of Lovell Reeve's 'Land and

Freshwater Mollusks of the British Isles,' pretend to the completeness and originality of Jeffreys's work.

The long interval since the publication of that book, and the numerous changes which have been made in classification and in nomenclature, are an answer to the question whether another treatise on this subject was wanted.

Judging from the part of Mr. Taylor's work before us, it would appear that the subject will be treated in a far more exhaustive manner than has ever been attempted previously. We know from the 'Journal of Conchology' that the author was accumulating material at least ten years ago, and therefore, as ample time in the preparation of a work of this kind is so indispensable to ensure thoroughness, we may anticipate a very full and detailed account of the subject.

From a prospectus accompanying this part, it appears that the work is to be completed in two volumes. The first will be devoted to a general treatment of the subject, the different forms and characters of the shell, the morphology of the animal, and descriptions of the structure and functions of the various organs; geological and geographical distribution, habits, parasites, enemies, uses, development, &c. The second volume will contain an account of the species individually.

Part I. consists of 64 pages of text, illustrated with 136 process blocks and one coloured plate as a frontispiece.

It commences with a definition of conchology and a few remarks upon the limitation of the subkingdom Mollusca. The following eight pages are devoted to classification, the scheme adopted being that elaborated by Professor Ray Lankester in the 'Encyclopædia Britannica.'

Nomenclature is then discussed, and instruction given in the formation of generic and specific names. In talking of synonymy our author informs us that for *Limnæa peregra* "over three hundred names have been catalogued, all specifically synonymous!" We sincerely trust that he will not burden his readers with a complete list of them.

Thirty-six pages are occupied with various points in connexion with the shell. Its structure and chemical composition, the numerous forms it assumes, and the various kinds of surface-ornamentation (sculpture) which adorn it are all explained, the descriptions being assisted with explanatory figures. The names associated with the various parts of shells are expounded, and the manner in which they are measured is also indicated. The rest of the part is occupied with some remarks upon species and varieties, and the various causes which tend to their production.

The matter contained in this part, although having special reference to the land and freshwater Mollusca, has a general bearing on the science of conchology as a whole. It contains very few new observations, but constitutes a clear and instructive *résumé* of the subjects treated of.

There are many students and collectors of British land and fresh-

water shells in this country who have not the opportunity of consulting scientific libraries, and to these a book like the present is particularly welcome.

The printing, paper, and general appearance of the work are all that can be desired; the figures, as a whole, are very good indeed, but to state beneath each by whom the specimen was collected appears rather unnecessary, being practically of no interest whatever to the general student, although perhaps gratifying to the individuals named, especially when the same illustration is employed several times and the personal information is repeated in each instance. The coloured plate, produced by chromo-lithography, is also very successful; the outlines of the different forms represented exhibit great accuracy, and the coloration is not exaggerated.

Considering the need of such a work, the style in which it is issued, and the completeness aimed at, there seems every probability of its gaining a wide circulation, and, in fact, superseding all previous works on the subject.

MISCELLANEOUS.

On the Embryology of Gebia littoralis *. By P. BUTSCHINSKY,
of the University of Odessa.

So long ago as the year 1882 a segmentation of the ova of *Callianassa*, belonging to the family Thalassinidæ, was described by C. Mereschkowski †. I am now in a position to furnish a complete account of the development of *Gebia littoralis*. The definite facts which I have obtained supplement in many respects the conception of the embryonic development of the Decapods as it is generally represented.

The ova of *Gebia* ‡ possess a great abundance of food-yolk. The initial segmentation takes place with them in the interior of the ovum; the first segmentation nucleus divides, together with the accumulation of protoplasm surrounding it, into two, four, and eight segmentation nuclei. All these nuclei travel towards the surface of the ovum. The food-yolk takes no share in this process; it commences to collect more closely round the nuclei, and partly unites

* I shall publish in Russian a complete memoir on the development of *Gebia* in the 'Mémoires de la Société des naturalistes de la Nouvelle-Russie à Odessa.'

† C. Mereschkowski, "Eine neue Art von Blastodermbildung bei den Decapoden," Zool. Anz. v. Jahrg. no. 101 (1882).

‡ For fixing the ova I have employed boiling Perenyi's and Kleinenberg's solutions, or alcoholic sublimate solution. The best staining reagents are Grenacher's borax-carminé, Kleinenberg's hæmatoxylin, and hæmatin-alum. The objects after being saturated with evaporated photoxylin and stained, were placed in a mixture of chloroform and paraffin at a temperature of 40°-45° C., and then in pure melted paraffin.